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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/502,015	07/20/2004	Hiroo Matsunaga	Q82646	8516
23373	7590	09/05/2006	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			MAKI, STEVEN D	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 09/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/502,015

Applicant(s)

MATSUNAGA, HIROO

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

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- 1) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 2) Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "said tread rubber, said side rubber and said side wall rubber are attached directly to the carcass" (emphasis added). In the description of the background art, the original disclosure describes "...tread rubber 72 is press-attached, via a belt, to a tread side of the carcass, which is on the outer side of the carcass in the radial direction of the tire" (page 1 of specification). In all embodiments of the invention, the original disclosure describes "belt (not shown)". See for example page 15. The original disclosure also describes attaching tread rubber on the outer surface of the belt instead of directly attaching the tread rubber to the carcass. It is acknowledged that page 8 describes "... the tread rubber in an unvulcanized state, to each outer end portion thereof in a widthwise direction of the tire the side rubber in an unvulcanized state has been attached, is attached on the outer side, in a radial direction of the tire, of

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the carcass which forms the case...". This description is identified as being directed to the production method of the pneumatic tire according to claim 3. In view of the original disclosure as a whole, one of ordinary skill in the art would readily understand this description as being generic to attaching the tread via a belt on the outer side of the carcass instead of contemplation and possession of the specific concept of directly attaching the tread rubber to the carcass.

In claim 1, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of "an interface between said side rubber and said sidewall rubber is located entirely within a ground contacting side of the tire" (emphasis added). The original disclosure supports the interface appearing at the ground-contacting side (the radially outermost point of the interface is at the ground contacting portion). However, the original disclosure fails to reasonably convey locating the radially lowermost point of the interface at or within a ground contacting side of the tire and therefore cannot support locating the interface entirely within the ground contacting side of the tire.

3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) **Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 101 (JP 6-336101).**

See figure 1 and paragraph 11 of machine translation.

With respect to "attached directly", note (1) the 112 first paragraph "new matter" rejection and (2) figure 1 of Japan 101, which shows the sidewall rubber 2 as being attached to the carcass (3,4), the soft side rubber 6 as being attached to the carcass (3,4) and the tread rubber 1 as being attached to the belt 8 wherein the width of the tread 1 is substantially the same as the width of the belt. In other words, this prior art rejection in this office action is made since it appears that the 112 first paragraph rejection regarding "directly attached" can only be overcome by deleting the "directly attached subject matter".

With respect to the interface between the tread rubber and side rubber being within the ground contacting side, Japan 101 is considered to disclose the interface between the tread rubber and the side rubber as being at the ground contacting surface of the tread since Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved.

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6) Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 in view of Europe 143 (EP 790143) and Sievers et al (US 4556376).

Japan 101 discloses a pneumatic tire comprising a tread rubber 1, side edge rubbers 6, and sidewall rubber 2, a belt, a carcass and beads. Japan 101 teaches using the same composition for the side edge rubber 6 and the sidewall rubber. See paragraph 11 of machine translation.

With respect to "attached directly", note (1) the 112 first paragraph "new matter" rejection and (2) figure 1 of Japan 101, which shows the sidewall rubber 2 as being attached to the carcass (3,4), the soft side rubber 6 as being attached to the carcass (3,4) and the tread rubber 1 as being attached to the belt 8 wherein the width of the tread 1 is substantially the same as the width of the belt. In other words, this prior art rejection in this office action is made since it appears that the 112 first paragraph rejection regarding "directly attached" can only be overcome by deleting the "directly attached subject matter".

With respect to the interface between the tread rubber and side rubber being within the ground contacting side, Japan 101 is considered to disclose the interface between the tread rubber and the side rubber as being at the ground contacting surface of the tread since Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved.

Japan 101 is considered to anticipate claims 1 and 2. In any event: it would have been obvious to one of the ordinary skill in the art to locate the interface between tread

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rubber 1 and side rubber 6 of Japan 101's high performance tire entirely within a ground-contacting side of the tire / at the ground contacting surface of the tread to reduce bending deformation at the interface and prevent separation of said side rubber and said side wall rubber at the interface since (1) Japan 101 teaches providing the tread rubber 1 of the high performance tire with a width substantially the same as the belt, (2) Japan 101 teaches using the soft rubber 6 to reduce the rigidity of the shoulder section so that the touch down condition of the tread at the time of a wet road surface cornering can be improved, (3) Japan 101 shows the interface between tread rubber 1 and side rubber 6 as opening at a "shoulder region" of the tire and (4) Europe 143, directed to high performance tire having high speed durability and cornering performance, suggests using an axial width WB of a belt equal to 0.8 to 1.1 times the ground contacting width TW (figure 1, page 3 lines 33-35).

The subject matter of the side rubber being attached to the tread rubber / tread rubber and side rubber were formed by integrally extruding in an unvulcanized state is met by Japan 101's disclosure. In any event: It would have been obvious to one of ordinary skill in the art to form Japan 101's tread 1 and side edge portions 6 by coextrusion since Sievers suggests coextruding a tire tread and edge strips by coextrusion to obtain satisfactory bonding.

7) Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 in view of Europe 143 and Sievers et al as applied above and further in view of Caretta et al (US 3433695).

As to claims 3 and 5, it would have been obvious to one of ordinary skill in the art to produce Japan 101's tire as claimed in view of the suggestion from Caretta et al to form a carcass on a rotary drum, apply the tread/ belt to the drum and then apply the sidewalls to the carcass and edges of the tread so as to form the carcass and apply other tire components using one drum. See figures 11, 15 and 16 of Caretta et al.

8) Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 101 in view of Europe 143 and Sievers et al as applied above and further in view of Japan 444 (JP 58-42444) or Takayanagi et al (US 4006766), and further in view of Caretta et al (US 3433695).

As to claims 3-5, it would have been obvious to one of ordinary skill in the art to use attachment preventing sheets to produce Japan 101's tire as claimed in view of the suggestion from Japan 444 (figure 3) or Takayanagi et al (figure 3, figures 4A, 4B, 4C) to use "attachment preventing sheets", shape a carcass and assemble sidewalls, tread and belt to the carcass to form a tire, which like that of Japan 101 has a "sidewall over tread" construction. Furthermore, it would have been obvious to one of ordinary skill in the art to form the carcass on a rotary drum and then use this same rotary drum to shape the carcass in view of Caretta et al's suggestion to use the same rotary drum to form a carcass and shape the carcass and thereby reduce the number of apparatus needed to build the tire.

Remarks

9) Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 6-13-06 have been fully considered but they are not persuasive.

10) No claim is allowed.

11) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

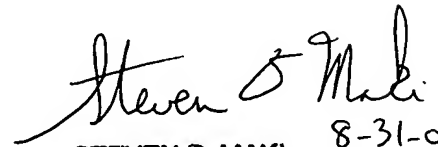
12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
August 31, 2006

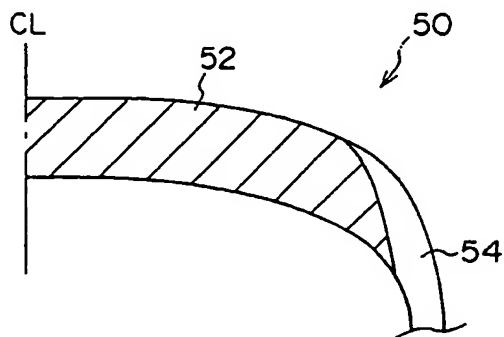

STEVEN D. MAKI
PRIMARY EXAMINER
8-31-06



Serial No. 10/502,015
Docket No. Q82646
Amendment dated June 13, 2006
Reply to Office Action of March 13, 2006
Replacement Sheet

PRIOR ART

FIG. 4A



PRIOR ART

FIG. 4B

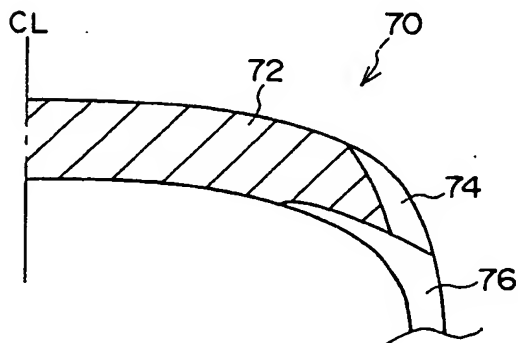
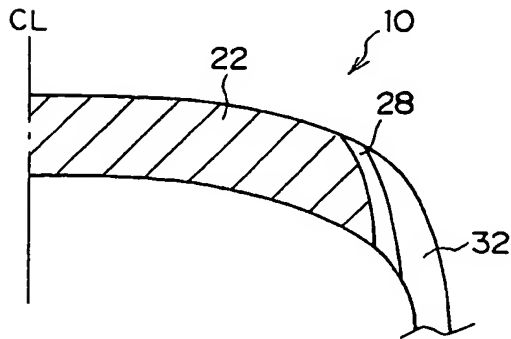


FIG. 4C



Jm
8-31-06
approved
and
accepted